

In the Claims:

Claims 1-11 (Canceled)

12. (Currently Amended) Magnetic field sensor comprising a Hall element that has four contacts, said four contacts being two inner and two outer contacts arranged along a straight line, a first of said two outer contacts and a first of said two inner contacts being configured for supply and discharge of a current flowing through the Hall element and a second of said two outer contacts and a second of said two inner contacts being configured for tapping a Hall voltage, wherein the two inner contacts are the same width and wherein the two outer contacts are the same width, wherein said four contacts are arranged on a surface of a same well of a first conductivity type that is embedded in a substrate of a second conductivity type, and wherein the two outer contacts are connected by an additional resistor so that a resistance between the two outer contacts is substantially the same as a resistance between the two inner contacts.

13. (Previously Presented) Magnetic field sensor according to claim 12, wherein said additional resistor is formed by an additional well of the first conductivity type embedded in said substrate.

14. (Previously Presented) Magnetic field sensor according to claim 12, wherein said Hall element further has a fifth contact arranged next to one of the two outer contacts of the Hall element on a side facing an adjacent edge of the well so that said additional resistor is formed in the well of the Hall element between said fifth contact and the adjacent outer contact.

15. (Previously Presented) Magnetic field sensor according to claim 12, wherein said Hall element further has a fifth contact and a sixth contact that are each arranged next to one of the outer contacts of the Hall element on a side facing an adjacent edge of the well and that are connected via a conductor path so that said additional resistor is formed in the well of the Hall element between said fifth contact and the respective adjacent outer contact and between said sixth contact and the respective adjacent outer contact.

16. (Previously presented) Magnetic field sensor according to claim 12, wherein at least one electrode electrically insulated from the well is arranged between two contacts.

17. (Previously presented) Magnetic field sensor according to claim 13, wherein at least one electrode electrically insulated from the well is arranged between two contacts.

18. (Previously presented) Magnetic field sensor according to claim 14, wherein at least one electrode electrically insulated from the well is arranged between two contacts.

19. (Previously Presented) Magnetic field sensor according to claim 15, wherein at least one electrode electrically insulated from the well is arranged between two contacts.

20. (Previously Presented) Magnetic field sensor according to claim 12, wherein a doping of the well in an area between the two inner contacts is different to a doping of the well in the areas between an inner contact and an outer contact.

21. (Previously Presented) Magnetic field sensor according to claim 13, wherein a doping of the well in an area between the two inner contacts is different to a doping of the well in the areas between an inner contact and an outer contact.
22. (Previously Presented) Magnetic field sensor according to claim 14, wherein a doping of the well in an area between the two inner contacts is different to a doping of the well in the areas between an inner contact and an outer contact.
23. (Previously Presented) Magnetic field sensor according to claim 15, wherein a doping of the well in an area between the two inner contacts is different to a doping of the well in the areas between an inner contact and an outer contact.
24. (Currently Amended) Magnetic field sensor comprising a Hall element that has four contacts, said four contacts being two inner and two outer contacts arranged along a straight line, a first of said two outer contacts and a first of said two inner contacts being configured for supply and discharge of a current flowing through the Hall element and a second of said two outer contacts and a second of said two inner contacts being configured for tapping a Hall voltage, wherein the two inner contacts are the same width and wherein the two outer contacts are the same width, wherein said four contacts are arranged on a surface of a ~~same~~ well of a first conductivity type that is embedded in a substrate of a second conductivity type, and wherein at least one electrode electrically insulated from the well is arranged between two contacts ~~so that in operation when a voltage is applied to the at least one electrode a resistance between the two outer contacts is substantially the same as a resistance between the two inner contacts.~~

25. (Currently Amended) Magnetic field sensor comprising a Hall element that has four contacts, said four contacts being two inner and two outer contacts arranged along a straight line, a first of said two outer contacts and a first of said two inner contacts being configured for supply and discharge of a current flowing through the Hall element and a second of said two outer contacts and a second of said two inner contacts being configured for tapping a Hall voltage, wherein the two inner contacts are the same width and wherein the two outer contacts are the same width, wherein said four contacts are arranged on a surface of a ~~same~~ well of a first conductivity type that is embedded in a substrate of a second conductivity type, and wherein a doping of the well in an area between the two inner contacts is different to a doping of the well in the areas between an inner contact and an outer contact ~~so that a resistance between the two outer contacts is substantially the same as a resistance between the two inner contacts.~~

26. (Currently Amended) Magnetic field sensor ~~comprising comprising:~~
a first Hall element having four contacts, said four contacts being two inner and two outer contacts arranged along a first straight line, a first of said two outer contacts and a first of said two inner contacts being configured for supply and discharge of a current flowing through the first Hall element and a second of said two outer contacts and a second of said two inner contacts being configured for tapping a first Hall voltage, wherein the two inner contacts are the same width and wherein the two outer contacts are the same width, wherein said four contacts are arranged on a surface of a ~~same~~ first well of a first conductivity type that is embedded in a substrate of a second conductivity type, and wherein the two outer contacts of the first Hall element are connected via a first additional resistor ~~so that a resistance between the two outer contacts of the first Hall element is substantially the same as a resistance between the two inner contacts of the first Hall element,~~

a second Hall element having four contacts, said four contacts being two inner and two outer contacts arranged along a second straight line, a first of said two outer contacts and a first of said two inner contacts being configured for supply and discharge of a current flowing through the second Hall element and a second of said two outer contacts and a second of said two inner contacts being configured for tapping a second Hall voltage, wherein the two inner contacts are the same width and wherein the two outer contacts are the same width, wherein said four contacts are arranged on a surface of a ~~same~~ second well of the first conductivity type that is embedded in the substrate, and wherein the two outer contacts of the second Hall element are connected via a second additional resistor ~~so that a resistance between the two outer contacts of the second Hall element is substantially the same as a resistance between the two inner contacts of the second Hall element,~~

wherein the first and second straight line run in parallel and wherein the contacts of the first and second Hall element are wired via conductor paths in such a way that the first Hall voltage of the first Hall element and the second Hall voltage of the second Hall element are equidirectional.